BRUHAT BANGALORE MAHANAGARA PALIKE

Byatarayanapura Division

Name of Work: Improvements to Roads, Drains and Drilling Borwells in ward no. 07 & 08 of Kodigehalli Sub-Division of Byatarayanapura Division, under P3106 Nagarathana works.

TOTAL ABSTRACT

3rd and PART BILL

BRUHATH BANGALORE MAHHANAGARA PALIKE

Road Infrastructure - Byatarayanapura Division

Name of Work: Improvements to Roads, Drains and Drilling Borwells in ward no. 07 & 08 of Kodigehalli Sub-Division of Byatarayanapura Division, under P3106 Nagarathana works.

Name of Agency :- Sri. G.N Ramesh

Job Code :- 007-16-000031 21224

Bill No : 3rd and Part Bill

Item No	Description of Item of Work	Unit	Previous Measurement			Present Measurement		Total Up do date		Remarks
			Qty	Rate	Amount	Qty	Amount	Qty	Amount	
1	Removing B.S.Slab Drain and stacking Page NO 25 /.Item No 5.32/PWD SR 2015-16.	Sqm	2520.30	70.00	176421.00	581.40	40698.00	3101.70	217119.00	
2	Refixing stone slabs of drains and pointing in CM (1:3) Page NO 25 /.Item No 5.33/PWD SR 2015-16.	Sqm	2520.30	86.00	216745.80	576.90	49613.40	3097.20	266359.20	
3	Providing granite slabs of selected quality roughly dressed and fixed in cement mortar (1:6) including fixid curing etc.., complete - 10.0cms thick (Page NO 28 / Item No 5.31.1 of PW, P&IWTD SR 2015-16).	Cum	1724.50	874.00	1507213.00	0.00	0.00	1724.50	1507213.00	
4	Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications complete as per specifications. MORTH chapter 3. Page No. 141/ Item No. 19.1/PWD SR 2015-16.	Cum	4277.10	91.00	389216.10	1130.44	102870.04	5407.54	492086.14	
5	Scarifying existing stone metal layer upto 75mm thick along with their bituminous surface, picking up scarified materials and stacking of old serviceable materialks with lead of 100m, sequential spreading of the salvaged aggregates with fresh aggregates on prepared base and consolidating as per water bond macadam specifications including cost of all labour, HOM of machineries complete as per specifications. MORTH chapter 5, No. 160/ Item No 21.3 /PWD SR 2015-16).	sqm	16764.42	97.00	1626148.74	3247.00	314959.00	20011.42	1941107.74	
6	Proviidng and laying, spreading and compacting graded stones aggregate to Wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per MORTH specifications. No.406, Page no. 157/ item no. 20.18/ PWD SR 2015-16	Cum	3815.59	1885.00	7192387.15	574.71	1083328.35	4390.30	8275715.50	

7	Cleaning the existing WBM road surface including removing of binding materials and other foreign matter with wire bushes and small picks, sweeping with brooms or soft brushes and finally dusting with old gunny bags and / compressed air to recieve bituminous treatment including cost of all materials, labour, HOM of machineries, curing complete as per specifications. specification no. 500-1.3 P. 160/ Item No 21.1 /PWD SR 2015-16.cation and direction of the engineer-in-charge of the work	sqm	259.28	14.00	3629.92	250.00	3500.00	509.28	7129.92	
8	Proviidng and applying primer coat for surfaces of medium porosity like cement stabilized soil base @ 1.10 Kg/sqmt over prepared surface with S.S bitumen emulsion using bitumen tanker fitted with spray set (excluding cleaning of road surface) including cost of all material, labour HOM of machineries complete as per specifications. MORTH specification No. 502, Page No. 160/ Item No. 21.5/ PWD SR 2015-16.	Sqm	17167.92	77.00	1321929.84	3282.55	252756.35	20450.47	1574686.19	
9	Cleaning the Existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to recieve bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. (P. 160/ I.No. 21.2/ PWD SR 2015-16)	sqm	17670.00	3.00	64075.63	0.00	0.00	17670.00	64075.63	
10	Providing and applying tack coat using 80/100 grade nitumrn (VG 10) on prepared black topped surfaces at 2.5 kg per 10sqm, heating bitumen in boiler fitted witth spray set (excluding cleaning of road surface) including cost of all materials, labours , HOM of machineries complete as per specifications.(Page no. 160/ Item no. 21.7/ PWD SR 2015-16)	Sqm	17670.00	16.00	258512.10	0.00	0.00	17670.00	258512.10	
11	Providing and laying bituminous Macadam on prepared surface with crushed coarse aggregates as per mix formula for base/ binding course including loading of aggregates with FE loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixed material in tipper to paver and mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer/ tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. using 100-120 TPH capacity H.M.P. with sensor paver Gr-II (50mm to 75mm)with 3.3%. (Item No. 21.11.2, Page No. 161, PWD SR 2015-16).	Cum	104.52	6000.00	627120.00	0.00	0.00	104.52	627120.00	
12	Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher with required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects complete as per specifications.using 40-60 TPH capacity H.M.P. with sensor paver Gr-II (30mm to 45mm)with 6% CRMB-55. (Item No. 21.23.6, Page No. 164, PWD SR 2015-16).	cum	1415.52	12530.00	17736465.60	0.00	0.00	1415.52	17736465.60	

31	Dismantling weather proof course and removing and conveying the debris to a distance upto 200m (PWDSR 2015-16, P. 258, I. 37.44)	Sqm	56.61	513.00	29040.93	0.00	0.00	56.61	29040.93	
32	Providing and laying intergral cement based water proofing treatemetn including preparation of surface as required for treatment of roofs, balconies, terraces etc., consisting of following application. A. Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water proofing compound over the RCC slab after cleaning the surface brefore treatment. B. Laying cment concrete usign broken brick bats 25mm to 200mm size with 50% of cm 1:5 admixed with water proofing comund. C. proper curing. D. Finishing with 20mm thick joint less cm of mix 1:4, e. whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test including cost of materials, labour complete as per specifications. (PWDSR 2015-16, P. 66, I. 10.2)	Sqm	56.61	1000.00	56610.00	0.00	0.00	56.61	56610.00	
33	Providing and fixing on wall surface 2.5kg / sq.cm H.D.P.E. rain down water pipes 110mm outer dia approved make and brand with necessary specials like shoes, bends and offsets fixed with iron clamps, wall plugs, screws, including cost of materials, labour, curing complete as per specifications. (PWDSR 2015-16, P. 47, I. 8.17)	Rm	8.40	556.00	4670.40	0.00	0.00	8.40	4670.40	
38	KSRB 4.9.1: Providing mild steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost pf materials, labour, HOM of machinery complete as per specifications.Specification No. KBS 4.6.3 Page No. 17 / Item No. 4.45 / PWD SR 2015-16	Qtl	0.00	5000.00	0.00	11.42	57100.00	11.42	57100.00	
39	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification NO KBS 4.6.2 Page No. 15 / Item No. 4.31/ PWD SR 2015-16	Sqm	0.00	331.00	0.00	74.70	24725.70	74.70	24725.70	
40	Dismantling plastering and removing the debris with a lead upto 200m including cost of materials, labour, HOM of machineries complete as per specifications. (PWDSR 2015-16, P. 258, I. 37.50)	Sqm	278.01	25.00	6950.25	0.00	0.00	278.01	6950.25	
41	KSRB 15.3.13 : Providing 12mm thick cement plaster in single coat with cement mortar 1:3, to ceiling including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. Page No. 113 / Item No. 15.21 / PWD SR -2015-16	Sqm	46.00	213.00	9798.00	0.00	0.00	46.00	9798.00	

42	KSRB 15.3.11 :Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. Page No. 113 / Item No. 15.19 / PWD SR 2015-16 (Inside wall)	Sqm	84.24	258.00	21733.92	0.00	0.00	84.24	21733.92	
43	KSRB 15-7 : Providing lime rendering for plastering to wall and ceiling, including cost of materials, labour, curing complete as per specifications. (P. 114 / I. 15.33 PWD SR - 2015-16).	Sqm	130.20	27.00	3515.40	0.00	0.00	130.20	3515.40	
44	KSRB 15.3.9: Providing 18mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications Page No. 113 / Item No. 15.17 / PWD SR 2015-16 (Out side Wall)	Sqm	142.02	219.00	31102.38	0.00	0.00	142.02	31102.38	
45	KSRB 15-14.1 : Providing and applying two coats with oil bound washable distemper of approved brand and shade on wall surface including priming coat with distemper primer after thoroughly brooming the surface free from mortar drops and other foregin matter including preparing the surface even and sand paper smooth, cost of materials, labours, complete as per specifications PWD SR 2015-16 (P.116 /I. 15.49.1).	Sqm	130.20	76.00	9895.20	0.00	0.00	130.20	9895.20	
46	KSRB 15-16.1: providing and finishing external walls in tow coats with water proof cement paint of approve brand and shade to give an even shade after thourghly brooming the surface to remove all dirt and losse powdered material, free from mortar dops and other foreign matter cost of materials, labours, complete as per specifications PWD SR 2015-16 (P. 117 / I. 15.53.2) with Primer	Sqm	142.02	92.00	13065.84	0.00	0.00	142.02	13065.84	
47	KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. Page No. 120 / Item No. 15.74 / PWD SR 2015-16	Sqm	142.02	92.00	13065.84	0.00	0.00	142.02	13065.84	
48	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320 kgs, with 20mm and down size graded granite metal, coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum with superplastisiser @ 3lts confirming to IS 9103-1999 reaffirmed-2008 machine mixed, concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, walls (any thickness) including attached plasters, column, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc, including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1,4.6, No. 13/ Item No. 4.11/ PWD SR 2015-16	Cum	0.00	6817.00	0.00	65.03	443309.51	65.03	443309.51	

50	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180 kgs with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregares @ 0.57 cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2. No. 12/ Item No. 4.3/ PWD SR 2015-16	Cum	142.99	5577.00	797455.23	27.39	152754.03	170.38	950209.26	
51	Vaccum De-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cst of generator, HOM of machinery screed vibaratory, power floater, blade and disc etc., with all leads and lift. (P171, It No. 22.7)	sqm	645.45	106.00	68417.70	0.00	0.00	645.45	68417.70	
54	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T & P and scaffolding wherever necessary, sorting the dismantled material, disposal of unservicea ble material and stacking the serviceable material with all lifts complete as per specifications.- Rubble stone masonry in cement mortar (PWDSR 2015-16, I. 18.27, P. 137)	cum	140.94	275.00	38758.50	0.00	0.00	140.94	38758.50	
55	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T & P and scaffolding wherever necessary, sorting the dismantled material, disposal of unservicea ble material and stacking the serviceable material with all lifts complete as per specifications. - RCC grade M20 and above (PWDSR 2015-16, I. 18.19, P. 137)	cum	52.50	1146.00	60165.00	0.00	0.00	52.50	60165.00	
57	KSRB 5.3-1:Providing and constructing granite /trap/basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20cms hign, bond stones at two m apart in each course including cost of materials, labour, curing etc., complete as per specifications.(P-235. Item No. 5.3) Available stone	Cum	71.10	4237.00	301250.70	0.00	0.00	71.10	301250.70	
58	New stone	Cum	57.95	5675.00	328866.25	0.00	0.00	57.95	328866.25	
59	KSRB 15.1.4: Providing ruled pointing to coursed. stone masonry with cement mortar 1:4, 20 mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications cement mortar 1:4. Page No. 112 / Item No. 15.4 / PWD SR 2015-16	sqm	622.80	106.00	66016.80	0.00	0.00	622.80	66016.80	

60	KSRB 4-1.6 : Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15cms, thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications, specification. No. KBS 4.1,4.2. No. 12/ Item No. 4.6/ PWD SR 2015-16	cum .	58.17	6039.00	351288.63	0.00	0.00	58.17	351288.63	
63	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 of size 450x200x400 mm and finished with CM 1:3 plastering and finishing cutting etc., complete. Page No. 25 / Item No. 5.29.1 / PWD SR 2015-16	Rm	1592.00	411.00	654312.00	0.00	0.00	1592.00	654312.00	
64	Providing and applying ready mix priming coat over oncrete / masonry, / asbestos cement sheet / plastered surfaces includding preparing the surface after thorougly cleaning of oil, grease, dirt and other foreign matter and sand papering including cost of materials, labour compelte as per specifications. Page No. 121 / Item No. 15.80 / PWD SR 2015-16	Sqm	350.00	29.00	10150.00	0.00	0.00	350.00	10150.00	
65	Providing and applying spray painting in two coats (excluding priming coat) over oncrete / masonry, / asbestos cement sheet / plastered surfaces includding preparing the surface after thorougly cleaning of oil, grease, dirt and other foreign matter and sand papering including cost of materials, labour compelte as per specifications. Page No. 121 / Item No. 15.81 / PWD SR 2015-16	Sqm	350.00	74.00	25900.00	0.00	0.00	350.00	25900.00	
E-1	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2015-16)	cum	0.00	624.00	0.00	0.00	0.00	0.00	0.00	
E-2	KSRRB M400-6.1: Construction of Granular Sub Base by providing close graded Crushed stone aggragate granite /trap/basalt materials, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site; spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications A. Plant Mix Method Gor Grading II Material Page No. 154 / Item No. 20.4.2 / PWD SR 2015-16	cum	0.00	1914.72	0.00	0.00	0.00	0.00	0.00	

E-3	Cement concrete pavement. Construction of un-reinfirced plain cement concrete pavement, thickness as per deisgn, over a prepraed sub base with OPC cement or any other type as per clause 1051..2.2 with 25mm and down size graded granite metal coarse aggregates and fine aggregates ,with superplastiser @ 3lts confirming to IS9103-1999 REAFFIRMED-2008, Mixed in a concrete mixer of not less than 0.6 cum capacity and approximate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates inlcuding levelling the form work as per drawing) and spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continous operation including, provision of contraction, expansion, construction operation including longitudinal joints, including groove cutting charges joint filler, sparation menebrane, sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specfication.M20 (AT 300 Kg per cum coarse aggregats @ 0.69cum and fine aggregate @0.43cum) (Pg No.174, It No.22.6.1)	cum	0.00	7149.41	0.00	0.00	0.00	0.00	0.00	
E-4	Providing and fixing 20 cm thick pre cast RCC covering slab using reinforced cement concrete M 20 mix with stone aggregate 20 mm and down size including centring shuttering reinforcement and bar bending machine mixed concrete laid in layers not exceeding 15 cm thick wellcompacted cost of all materials labour curing comlete as per specification (Data Rate)	sqm	0.00	5876.63	0.00	0.00	0.00	0.00	0.00	
E-5	Providing and fixing MS Grating 260x260 mm(Page No.VIII, Sl No.237, code No.0771)	nos	0.00	102.33	0.00	0.00	0.00	0.00	0.00	

E-6	**KSRB 4.2.7 : Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70cum and fine aggregtes @ 0.47cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in ground floor level for roof slabs, staircase, lintles and beams retaining walls, return walls, walls (any thickness) including attached pilasters, columns, ,pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6**	Cum	0.00	7760.02	0.00	0.00	0.00	0.00	0.00	
	Grand Total				**34480960.46**		**2613982.82**		**37094943.28**	

(Rupees twenty six lakhs thirteen thousand nine hundred and eighty two rupees and eighty two paise only)

Certificate:

1 **Certified that the contractor has done the work satisfactorly**
2 **Certified that the debris has been removed from the site**
3 **Certified that the above item of the work were not claimed in any other bill**

for RBI-TECHNICAL SERVICES

Proprietor

PMC

Asst.Engineer Ward no.08

Assistant Executive Engineer.
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

Asst.Exe.Engineer

Contractor

Asst.Engineer Ward no. 07